UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/711,400	09/16/2004	Philippe Gambier	68.0468	5399

35204 7590 06/14/2006

SCHLUMBERGER RESERVOIR COMPLETIONS
14910 AIRLINE ROAD
ROSHARON, TX 77583

EXAMINER	
BATES, ZAKIYA W	

ART UNIT	PAPER NUMBER
3676	

DATE MAILED: 06/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/711,400	GAMBIER, PHILIPPE	
	Examiner	Art Unit	
	Zakiya W. Bates	3676	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 March 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-26* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-26* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *09162004, 09212004*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claims 12-17 are objected to because of the following informalities: claim 12, line 5, the term "the the" should be replaced with --the--. Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1 and 4-26 are rejected under 35 U.S.C. 102(b) as being anticipated by US 6,223,821 (US'821) or US 5,517,854 (US'854).

US 6,223,821 discloses an apparatus that includes, with respect to claim 1, a packer 12 comprising a sensor 14 positioned therein. With respect to the depending claims, the reference teaches the limitations as claimed, including a pressure gauge, a setting chamber (112, 130, 140, 142), a second sensor (col.4, lines 45-53), and the sensor is adapted to measure characteristics both internal and external to the packer. With respect to claim 12, the reference discloses a completion, comprising; a packer 12

having a setting chamber (112, 130, 140, 142) supplied with hydraulic fluid from a remote source; a pressure gauge (14, 20) adapted to measure a pressure within the setting chamber; and a pressure sensor 14 to measure a pressure of the hydraulic fluid supplied by the remote sources at a location remote from the setting chamber; wherein the pressure within the setting chamber is compared with the pressure at the location remote from the setting chamber to determine whether the hydraulic fluid is reaching the setting chamber. With respect to the depending claims, the reference teaches the limitations as claimed. With respect to claim 18, the discloses a completion, comprising: a packer 12; a gauge 14 above the packer; the gauge communicating with an interior cavity of the packer; and a redundant gauge 20 to verify measurements of the gauge by sensing the same well characteristic at a location spaced from a measurement location of the gauge. With respect to the depending claims, the reference teaches the limitations as claimed. With respect to claim 21, the reference discloses a method for use in a well, comprising directly measuring a pressure in a setting chamber (112, 130, 140, 142) of a downhole tool 12 with a pressure gauge (14, 20). With respect to the depending claim, the reference teaches the limitations as claimed. With respect to claim 23, the reference discloses a method for use in a well, comprising: positioning a plurality of gauges 14 (col. 4, lines 45-53) within a packer 12; measuring well characteristics at different positions within the well using the gauges: and verifying at least one measured well characteristic by sensing the same measured well characteristic at a spaced measurement location. With respect to the depending claims, the reference teaches the limitations as claimed.

US 5,517,854 discloses an apparatus that includes, with respect to claim 1, a packer 312, 302 comprising a sensor 316, 318, 344 positioned therein. With respect to the depending claims, the reference teaches the limitations as claimed, including a pressure gauge 330, a setting chamber 370, 376, a second sensor, and the sensor is adapted to measure characteristics both internal and external to the packer (see especially Fig. 3 and col. 8, line 66- col. 9, line 21). With respect to claim 12, the reference discloses a completion, comprising; a packer 312, 302 having a setting chamber 370, 376 supplied with hydraulic fluid from a remote source; a pressure gauge 330 adapted to measure a pressure within the setting chamber; and a pressure sensor 316, 318, 344 to measure a pressure of the hydraulic fluid supplied by the remote sources at a location remote from the setting chamber; wherein the pressure within the setting chamber is compared with the pressure at the location remote from the setting chamber to determine whether the hydraulic fluid is reaching the setting chamber. With respect to the depending claims, the reference teaches the limitations as claimed. With respect to claim 18, the discloses a completion, comprising: a packer 312, 302 a gauge 330 above the packer; the gauge communicating with an interior cavity of the packer; and a redundant gauge to verify measurements of the gauge by sensing the same well characteristic at a location spaced from a measurement location of the gauge. With respect to the depending claims, the reference teaches the limitations as claimed. With respect to claim 21, the reference discloses a method for use in a well, comprising directly measuring a pressure in a setting chamber 370, 376 of a downhole tool 312, 302 with a pressure gauge 330. With respect to the depending claim, the reference

teaches the limitations as claimed. With respect to claim 23, the reference discloses a method for use in a well, comprising: positioning a plurality of gauges 330 within a packer 312, 302 measuring well characteristics at different positions within the well using the gauges: and verifying at least one measured well characteristic by sensing the same measured well characteristic at a spaced measurement location. With respect to the depending claims, the reference teaches the limitations as claimed.

4. Claims 1, 5, 6, and 9-11 are rejected under 35 U.S.C. 102(b) as being anticipated by US 6,135,204 (US'204) or WO2004/029411 (WO'411) (both cited by applicant).

US 6,135,204 discloses an apparatus that includes, with respect to claim 1, a packer 28, 106/108 comprising a sensor 30/32, 110/112 positioned therein. With respect to the depending claims, the reference teaches the limitations as claimed, including a second sensor, and the sensor is adapted to measure characteristics both internal and external to the packer.

WO2004/029411 discloses an apparatus that includes, with respect to claim 1, a packer 70 comprising a sensor 66, 78 positioned therein. With respect to the depending claims, the reference teaches the limitations as claimed, including a second sensor, and the sensor is adapted to measure characteristics both internal and external to the packer.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over US'821, US'854, US'204, or WO'411 in view of US 2004/0083805, US 2004/0069487, or US 6,577,954.

Each of the four base references cited above disclose packers as stated above, however, the references fail to teach the sensor being a MEM sensor.

US 2004/0083805, US 2004/0069487, and US 6,577,954 teach using conventional MEM sensors in downhole tools.

It would have been considered obvious to one of ordinary skill in the art at the time the invention was made to have provided a MEM sensor in the packer of any of the base references in order to take appropriate measurements within or exterior of a downhole tool.

7. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over US'821, US'854, US'204, or WO'411 in view of US 2002/0163639.

Each of the four base references cited above disclose packers as stated above, however, the references fail to teach the sensor being a nanotechnology-based sensor. US 2002/0163639 teaches using conventional nanotechnology-based sensors in downhole tools.

It would have been considered obvious to one of ordinary skill in the art at the time the invention was made to have provided a nanotechnology-based sensor in the

packer of any of the base references in order to take appropriate measurements within or exterior of a downhole tool.

Response to Arguments

8. Applicant's arguments with respect to claims 1-26 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Zakiya W. Bates whose telephone number is (571) 272-7039. The examiner can normally be reached on Monday-Friday, 8:30 AM-5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Glessner can be reached on (571) 272-6843. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Zakiya W. Bates
Primary Examiner
Art Unit 3676

zb
June 9, 2006